



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION 10**  
1200 Sixth Avenue  
Seattle, WA 98101

December 27, 2006

Reply to  
Attn. of: ETPA-088

Ref: 05-049-MMS

John Goll  
Regional Director, Alaska OCS Region  
Minerals Management Service  
3801 Centerpoint Drive, Suite 500  
Anchorage, AK 99503-5823

Re: Draft Environmental Impact Statement: Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 and Seismic Surveying Activities in the Chukchi Sea

Dear Mr. Stang,

The U.S. Environmental Protection Agency (EPA) has reviewed the draft Environmental Impact Statement (EIS) for the **Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 and Seismic Surveying Activities in the Chukchi Sea** (CEQ No. 20060423). Our review has been conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The Chukchi Sea Lease Sale 193 and Seismic Surveying Activities Draft EIS (Sale 193 Draft EIS) was prepared to analyze the effects of a lease sale within the Chukchi Sea Outer Continental Shelf. The document is also intended to provide NEPA evaluation for exploration activities in the Chukchi Sea, including seismic survey geophysical permitting and NEPA documentation for National Marine Fisheries Service (NMFS) potential issuance of Incidental Harassment Authorizations. The NMFS is a cooperating agency for the Draft EIS.

The Draft EIS evaluates three action alternatives and a no-action alternative:

- Alternative I: Offer for lease approximately 6,155 whole and partial blocks (about 34 million acres), excluding the 15- to 50-mile wide polynya or spring lead system corridor along the coast (Proposed Action).
- Alternative II: No Lease Sale (No Action Alternative).
- Alternative III: Includes the Proposed Action, excluding an area of approximately 1,649 whole or partial blocks; this alternative would attempt to reduce potential impacts to subsistence hunting and various wildlife species and habitats (Corridor I Deferral).
- Alternative IV: Includes the Proposed Action, excluding approximately 795 whole or partial blocks; this alternative was developed as a result of a 1987 Biological Opinion for the Chukchi Sea (Corridor II Deferral).

## General Comments

EPA recognizes the challenges that MMS faced in preparing this Draft EIS, primarily due to the lack of scientific data and the high levels of uncertainty associated with baseline geophysical and biological features in the frontier area of the Chukchi Sea. The Draft EIS acknowledges uncertainties regarding existing environmental conditions, environmental affects of alternatives (including cumulative effects) and mitigation measures to reduce adverse impacts. The lack of data regarding the distribution, abundance and habitat use of important biological and subsistence resources in the area such as the endangered bowhead whale is significant, and creates additional uncertainty regarding Draft EIS conclusions. In addition, the use of the “Opportunity Index” and the hypothetical development scenario that is used in the document add additional layers of uncertainty regarding the probabilities of exploration, production and development activities and the risks associated with those activities.

Although the Draft EIS makes a credible attempt to remind readers of the data gaps and uncertainties in the alternatives analyses, EPA is concerned that, overall, the depth and diversity of uncertainties presented in the document resulted in the lack of adequate support for many of the document’s conclusions. EPA has assigned a rating of **EC-2 (Environmental Concerns-Insufficient Information)** to this Draft EIS. Please find enclosed a copy of the EPA rating system used in conducting our environmental review. This rating and a summary of our comments will be published in the *Federal Register*. EPA’s primary concerns regarding the Draft EIS and our corresponding recommendations for the Final EIS are summarized below.

## Draft EIS Alternatives

EPA scoping comments for the Draft EIS recommended that in addition to information that identifies how the lease sale responds to the current Administration’s goal to expedite exploration of domestic energy resources (as stated in the Notice of Intent), the MMS also provide information about what alternatives, alone or in combination, including those other than off-shore oil and gas development, may supply that need. Such alternatives were not analyzed in the Draft EIS. Information regarding the potential roles that energy conservation and use of renewable resources may play in helping to meet increasing energy demands in this country has merit in the evaluation of alternatives for a Chukchi Sea lease sale. The information is particularly relevant given the technical challenges of oil and gas development in the remote area, risks from spills and the inability to ensure adequate cleanups, lack of existing infrastructure, data gaps in critical environmental baseline information, and increasing concerns regarding use of fossil fuels and contributions to global climate change.

On the basis of information presented in the Draft EIS, EPA believes there is merit in providing for the maximum protection of biological and subsistence resources in the Planning Area, primarily due to the lack of available baseline data on the resources in the area, challenges with monitoring for adverse changes in biological resources, and uncertainties regarding the effectiveness of mitigation measures to avoid or reduce adverse impacts to resources. Alternatives to the Proposed Action that are presented in the Draft EIS include two variations of exclusion areas along the coastward side of the Planning Area. However, it is unclear how the boundaries of the excluded areas in the two alternatives (Alternatives III and IV) were determined. Due to the lack of information about the Planning Area, the use of the “Opportunity

Index” and other assumptions regarding the potential level of exploration, development and production activity as a result of a lease sale, it is unclear if the two alternatives, together with the Proposed Action and a No Action Alternative, represent a range of reasonable alternatives in the Draft EIS. The Final EIS should present a more thorough discussion of the decision criteria and the geophysical, biological and subsistence information that was used to develop the alternatives in order to demonstrate that a range of reasonable alternatives was considered.

According to the Draft EIS the U. S. Fish and Wildlife Service (USFWS) Endangered Species Act (ESA) consultation regarding endangered spectacled and Steller’s eiders had not been completed prior to publication of the document; therefore, the action alternatives may not include an option for avoiding unacceptable adverse impact to those species. The Final EIS should document the results from the most up-to-date ESA consultation with USFWS and clearly explain how the selection and analyses of the Proposed Action and the alternatives considered the information.

### **Coordination with Other NEPA Activities**

The Lease Sale 193 EIS is being developed concurrently with two separate but relevant NEPA efforts by MMS and NMFS. During this Draft EIS public comment period, MMS is also evaluating public comments that were submitted on a Draft EIS for the Outer Continental Shelf (OCS) 5-Year Program (2007-2012) and public scoping comments that were submitted for a Programmatic EIS that will be prepared by MMS and NMFS for permits and authorizations associated with seismic survey activities for oil and gas exploration in the Beaufort and Chukchi Seas. EPA is concerned that the overlapping schedules of the different NEPA documents, and the relatively short timelines assigned to developing and finalizing the documents, will make it very difficult for the sponsor agencies to obtain, evaluate and incorporate the most up-to-date information in each document. In addition, information regarding potential exploration, development, and production scenarios, and oil spill risk analyses does not appear consistent between the OCS 5-Year Program Draft EIS and this Draft EIS. EPA recommends that the MMS carefully review both documents, and the information that is currently being collected for use in the Programmatic Draft EIS, and provide consistency in information that should be common to all the documents. EPA also recommends that the MMS coordinate the schedules, and allow for ample time for public review and input, for the three ongoing NEPA efforts in order to provide for public participation and maximize the use and effectiveness of new, updated information and input from agencies, tribes and the public into each document. EPA also recommends that MMS describe in the Lease Sale 193 Final EIS how the comments that were received have been considered for each document, as applicable.

Throughout the Draft EIS, references are made to information available in the *Programmatic Environmental Assessment (PEA), Arctic Ocean Outer Continental Shelf Seismic Surveys – 2006*. The MMS relied heavily on this document in the evaluation of potential environmental effects of pre-lease seismic survey geophysical permitting. As the PEA is currently being updated by a Programmatic EIS, EPA recommends that MMS review references to the PEA that are in the Lease Sale 193 Draft EIS, update as appropriate with information that is available during development of the Draft Programmatic EIS, and incorporate the information into the Final EIS for Lease Sale 193. This is particularly important as the documents should include robust and comprehensive evaluations of the potential impacts to bowhead whales due to

noise associated with seismic activities. Again, EPA recommends that the schedules for these documents be synchronized in order to take full advantage of updated information that is obtained during the concurrent NEPA processes.

The Draft EIS discusses the polynya exclusion zone that is applicable to all of the action alternatives, and also notes that the proposed OCS 5-Year Program for 2007-2012 Draft EIS includes different alternatives for this currently protected area, including elimination of the current polynya zone (as defined in the 2002-2007 OCS 5-Year Program) or establishing an arbitrary 25-mile wide corridor. EPA recommends that the Final EIS present a clear description of the boundaries of an excluded polynya zone that would be applicable to a Lease Sale 193 in 2007, which takes into consideration the exclusion zone under the current 2002-2007 OCS 5-Year Program, and the additive features of whichever alternative is selected in the Final EIS for the 2007-2012 OCS 5-Year Program. EPA recommends that any lease sale area in the Chukchi Sea exclude a polynya zone that provides for maximum protection of sensitive biological and subsistence resources, which is developed and supported with the best available scientific data and traditional ecological knowledge about the area.

### **Endangered Species Act**

EPA is concerned that relevant information regarding risks to threatened and endangered species [e.g., the spectacle eider (threatened) and the Steller's eider (threatened)] from oil and gas development has not been adequately considered in the Draft EIS. In the case of eiders, and on the basis of information in the Draft EIS, the high probability of a large spill in the planning area combined with the presence of these threatened species during vulnerable life cycle stages indicate a significant risk to their populations. The Final EIS should include a more comprehensive analysis of the probability of significant adverse impacts to these species as a result of spills, including worst case scenarios, and potential implications for survivability of the species.

EPA is also concerned with data gaps regarding the three species of endangered cetaceans that occur within or near the Chukchi Sea Planning Area. These species include the bowhead whale, fin whale, and humpback whale. Of particular concern is the lack of data regarding the bowhead whale, given its endangered status and the critical role it plays in the subsistence lifestyle of Alaska Natives. Recent data on the bowhead distribution, abundance, or habitat use in the Chukchi Sea Planning area are not available, according to the Draft EIS. The significance of feeding in particular areas to the overall food requirements of the bowhead population or segments of the population is not clear, and both MMS and NMFS believe that there are major questions about bowhead whale feeding that remain to be answered. The Draft EIS also describes significant uncertainties about the details of many cumulative effects on the bowhead population in the area. The Final EIS needs to provide additional information to support conclusions regarding potential adverse impacts to the bowhead whale as a result of oil and gas exploration, development and production in the Planning Area and the effectiveness of mitigation measures to avoid or minimize adverse impacts. The Final EIS should also provide additional explanation of how input from local residents and affected tribes regarding bowhead whale distribution and behavior (with and without industrial activities in the area) was evaluated and used during the NEPA process and how the input was factored into the selection of a final alternative.

As noted in the Draft EIS, in 2005 the U.S. Fish and Wildlife Service was petitioned to list the polar bear as threatened under the Endangered Species Act, and the agency is currently conducting a status review for a potential listing. A decision regarding listing the polar bear as threatened is expected to occur during preparation of the Final EIS. EPA recommends that the Final EIS incorporate the best available updated information on the regulatory status of the polar bear, including potential designation of any new critical habitat areas, and the implications for a lease sale in the Chukchi Sea.

### **Oil Spill Probabilities and Risk**

In the Draft EIS, MMS used a combination of oil spill risk analysis and probability assumptions to determine the likelihood of various spill scenarios. EPA is concerned that throughout the document, the reference to an “unlikely” large oil spill causes confusion to the reader, and in general does not accurately reflect the potential for large oil spills to occur and cause significant adverse, and potentially irreversible, impacts to environmental and subsistence resources. According to the oil spill risk analyses presented in the Draft EIS, the chance of a large oil spill greater than or equal to 1,000 barrels (bbls) occurring and entering offshore waters is within a range of 31-51%, which represents a significant risk. For purposes of analyses, MMS models one large spill event of either 1,500 bbl (platform spill) or 4,600 bbl (pipeline spill), and concludes that the low probability of such an event, combined with the characteristics of the resources inhabiting the area, make it “unlikely” that a large oil spill would occur and contact these resources.

EPA is very concerned that the risk to environmental resources, based on the above simplified risk analysis and probability assumptions, from a large oil spill is understated in the Draft EIS. On the basis of information presented in the document regarding the calculated (statistical) risks of oil spills from OCS development, data gaps regarding sensitive environmental resources in the area, and the proven inability to clean up oil spills in broken ice and other hazardous conditions in the Chukchi Sea that exist for much of the year, the actual likelihood that a large oil spill would occur and significantly impact high-value resources should be considered much greater. EPA recommends that the MMS incorporate a more comprehensive approach to oil spill risk and the adverse impacts that could result from leasing, exploration, development and production of oil and gas resources in the Chukchi Sea. The Draft EIS lacks sufficient justification to conclude that while a large oil spill could cause adverse effects, including significant adverse effects, the low probability for such a spill combined with an assumption that the area affected by the spill would not likely contact biological resources indicate it is “unlikely” that a large oil spill would occur.

### **Environmental Justice**

EPA’s primary concerns with the treatment of environmental justice during the Lease Sale 193 NEPA process and in discussions in the Draft EIS focus on the effects of multiple, overlapping and fast-tracked planning processes that have occurred over the past several months, and increasing concerns from local residents regarding human health impacts from proposed oil and gas exploration, development and production activities in the area.

EPA recognizes that the voluminous amount of information that has been prepared in various NEPA documents for oil and gas activities in the Alaska Arctic, both onshore and offshore, throughout 2006 has put a strain on local communities' abilities to adequately review and respond to proposed activities that directly affect their quality of life and, in particular, their subsistence way of life. In recent weeks public input has been solicited for the Beaufort Sea Oil and Gas Lease Sale 202 EA and Finding of No Significant Impact, the MMS OCS 5-Year Program for 2007-2012 and the accompanying 5-Year Program Draft EIS, the NOI for a Programmatic EIS for seismic activities in the Chukchi and Beaufort Seas, an NOI for a Supplemental EIS for the Northeast National Petroleum Reserve-Alaska (NPR-A) Integrated Activity Plan, and this Lease Sale 193 Draft EIS. The public review and comment periods have at times occurred during critical whaling and other subsistence activity seasons when many of the key individuals in the communities were likely unavailable, and they have all occurred in such rapid succession that thoughtful and meaningful reviews, which the agencies ask for and expect, have undoubtedly been constrained. More importantly, it is understandable that the pressure to review, comment on and ultimately live with the rapid pace of industrial activities creates stress and other adverse impacts to individuals living in the area. The Draft EIS does not present adequate information to support the statements about the urgency to conduct Lease Sale 193 at this time. EPA recommends that the MMS reconsider the proposed schedule for the lease sale, the accompanying NEPA process requirements, and the myriad of other overlapping resource development planning processes that are currently underway in the area and strive to achieve more balance in the both the planning schedules and in the impacts to residents' daily lives.

A second concern relative to environmental justice results from EPA's review of the Draft EIS and also from our understanding of the recurring comments from local residents and North Slope Borough officials about recognized and potential human health impacts from onshore and offshore oil and gas activities on the North Slope. It is our understanding that on several occasions MMS and other federal agencies have been asked by North Slope Borough officials to engage in meaningful discussions and consultation about environmental health concerns of local residents. EPA understands the challenges associated with studies of impacts from oil and gas development on community and individual human health and the evaluation of potential mitigation for impacts. However, EPA encourages MMS to foster and participate in focused dialogue with local residents in order to better understand the types of concerns regarding human health that are in the communities and work with communities to explore potential ways to analyze and mitigate adverse impacts. EPA considers the analysis of human health impacts from proposed oil and gas leasing, exploration, development and production part of the NEPA process, and we would be interested in assisting MMS in their efforts.

### **Cumulative Impacts**

EPA is concerned that the Draft EIS does not adequately analyze potential cumulative impacts on Alaska's onshore and offshore ecosystem and the local communities who depend on healthy ecosystems for their social, cultural and subsistence way of life. An expanded analysis and discussion regarding potential cumulative effects from past, present and reasonably foreseeable future OCS and non-OCS related activities within the planning area should be included in the Final EIS. In particular, an expanded discussion of present and reasonably foreseeable future non-OCS activities, which include the expected significant increase in

nonenergy related minerals exploration and development in northern Alaska, and their potential impacts should be included for the cumulative case in the Final EIS. Mineral exploration and development activities that are currently underway and expected to increase in northwestern Alaska over the next several years are relevant to the cumulative analysis (e.g., expansions to the Red Dog Mine, coal extraction on Arctic Slope Regional Corporation land and hard rock mining activities in South NPR-A). Additional discussion regarding increased marine vessel traffic, including large-volume cargo vessels, and land use alterations that are likely to result from onshore hard rock mining activity and future development of oil and gas resources in the NPR-A should be included in the Final EIS.

EPA appreciates the opportunity to review and provide comments on the Chukchi Sea Planning Area Lease Sale 193 Draft EIS. If you have any questions or comments concerning this review, please contact me at (206) 553-1601. Please also feel free to contact Colleen Burgh in our Alaska Operations Office at (907) 271-1481.

Sincerely,

/s/

Christine B. Reichgott, Manager  
NEPA Review Unit

Enclosure